

Title (en)  
Vaccines containing hybrid polypeptides consisting of at least two different allergenic proteins

Title (de)  
Impfstoffe, die hybride Polypeptide mit mindestens zwei verschiedenen Allergenen enthalten

Title (fr)  
Vaccins comprenant des polypeptides hybrides constitué d'au moins deux allergènes différents

Publication  
**EP 1221317 A1 20020710 (EN)**

Application  
**EP 00128660 A 20001228**

Priority  
EP 00128660 A 20001228

Abstract (en)  
Hybrid polypeptides comprising at least two different allergenic proteins or fragments thereof wherein each fragment consists of at least eight consecutive amino acids of the respective allergenic protein are disclosed. The hybrid polypeptides and polynucleotides coding therefor can be used as pharmaceutical compositions, in particular as vaccines. <IMAGE>

IPC 1-7  
**A61K 39/36**; **A61P 37/00**; **C07K 14/415**; **C12N 15/62**; **C12N 5/10**; **C12N 1/21**; **G01N 33/53**; **C12N 15/29**

IPC 8 full level  
**A61P 37/00** (2006.01); **C07K 14/415** (2006.01); **C12N 1/21** (2006.01); **C12N 15/29** (2006.01); **C12N 15/62** (2006.01); **A61K 38/00** (2006.01); **A61K 39/00** (2006.01)

CPC (source: EP US)  
**A61P 37/00** (2018.01 - EP); **A61P 37/08** (2018.01 - EP); **C07K 14/415** (2013.01 - EP US); **C12N 15/62** (2013.01 - EP US); **A61K 38/00** (2013.01 - EP US); **A61K 39/00** (2013.01 - EP US); **A61K 2039/53** (2013.01 - EP US); **C07K 2319/00** (2013.01 - EP US); **C07K 2319/21** (2013.01 - EP US); **C07K 2319/40** (2013.01 - EP US)

Citation (search report)

- [A] WO 9534578 A1 19951221 - PHARMACIA AB [SE], et al
- [X] B. PANDJAITAN ET AL.: "pWT-PROF, A PLASMID FOR HIGH-LEVEL EXPRESSION OF RECOMBINANT PEPTIDES FUSED TO A BIRCH PROFILIN-DERIVED HEXADECAPETIDE TAG: A SYSTEM FOR THE DETECTION AND PRESENTATION OF RECOMBINANT ANTIGENS", GENE, vol. 237, no. 2, 17 September 1999 (1999-09-17), pages 333 - 342, XP004183526
- [A] M. VAN HAGE-HAMSTEN ET AL.: "SKIN TEST EVALUATION OF GENETICALLY ENGINEERED HYPOALLERGENIC DERIVATIVES OF THE MAJOR BIRCH POLLEN ALLERGEN, Bet v 1: RESULTS OBTAINED WITH A MIX OF TWO RECOMBINANT Bet v 1 FRAGMENTS AND RECOMBINANT Bet v 1 TRIMER IN A SWEDISH POPULATION BEFORE THE BIRCH POLLEN SEASON", JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, vol. 104, no. 5, November 1999 (1999-11-01), pages 969 - 977, XP001022679
- [A] L. ZHANG ET AL.: "ANTIGEN- AND ISOTYPE-SPECIFIC IMMUNE RESPONSES TO A RECOMBINANT ANTIGEN-ALLERGEN CHIMERIC (RAAC) PROTEIN", JOURNAL OF IMMUNOLOGY, vol. 151, no. 2, 15 July 1993 (1993-07-15), pages 791 - 799, XP001026107
- [T] B. LINHART ET AL.: "GENETICALLY ENGINEERED HYBRID VACCINES FOR THE TREATMENT OF GRASS POLLEN ALLERGY", JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, vol. 107, no. 2, February 2001 (2001-02-01), pages S56, XP001022645

Cited by  
EP1440979A1; WO2004065414A1; US8709435B2; US7491396B2

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**EP 1219301 A1 20020703**; **EP 1219301 B1 20070725**; AT E367826 T1 20070815; DE 60129528 D1 20070906; DE 60129528 T2 20080410; DK 1219301 T3 20071022; EP 1221317 A1 20020710; ES 2287067 T3 20071216; HK 1046648 A1 20030124; HK 1046648 B 20071026; PT 1219301 E 20070904; US 2002173625 A1 20021121; US 2011150920 A1 20110623; US 7862828 B2 20110104

DOCDB simple family (application)  
**EP 01130292 A 20011220**; AT 01130292 T 20011220; DE 60129528 T 20011220; DK 01130292 T 20011220; EP 00128660 A 20001228; ES 01130292 T 20011220; HK 02108362 A 20021119; PT 01130292 T 20011220; US 2691401 A 20011227; US 95482110 A 20101126